Development of anti-HMGB1 antibody drug

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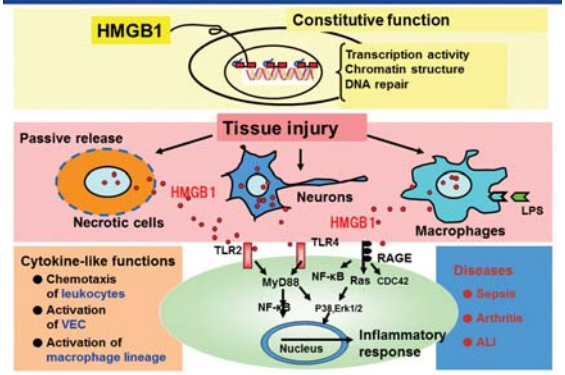
ABSTRACT

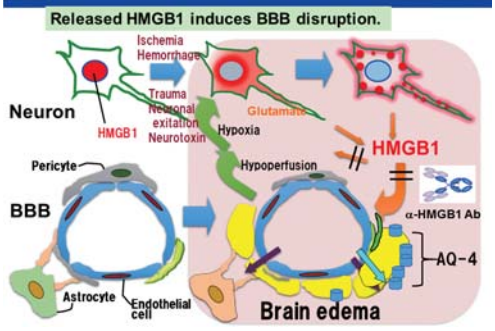
High mobility group box-1 (HMGB1) plays an important role in many kinds of inflammatory diseases. Anti-HMGB1 monoclonal antibody therapy has been demonstrated to be beneficial for the treatment of brain injuries induced by ischemia, hemorrhage and trauma. Moreover, anti-HMGB1 suppressed epileptogenesis and neuropathic pain.

We developed humanized monoclonal antibody that neutralizes the activity of HMGB1. This antibody will be applicable for many kinds of diseased listed above.

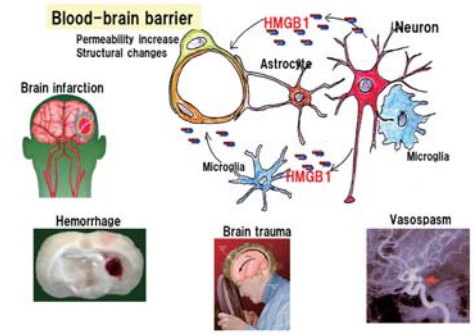
HMGB1 is released from different cells as DAMP



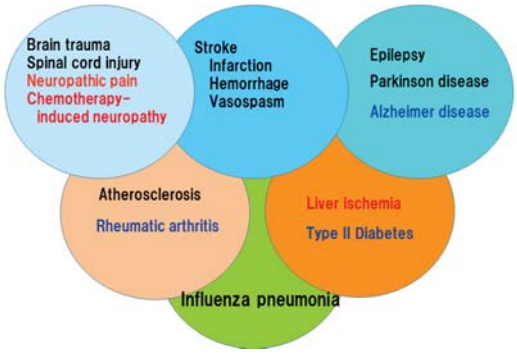
HMGB1 release and disruption of BBB



HMGB1 may be a mediator of Neurovascular unit

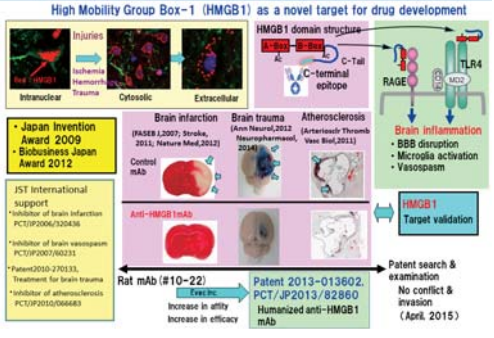


Anti-HMGB1 monoclonal Ab applicable for many diseases

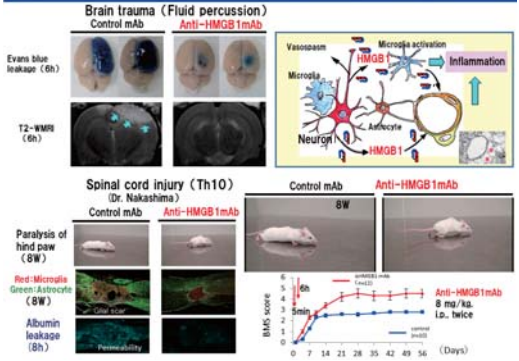


2009-2011 Grant from Ministry of Health, Welfare and Labour

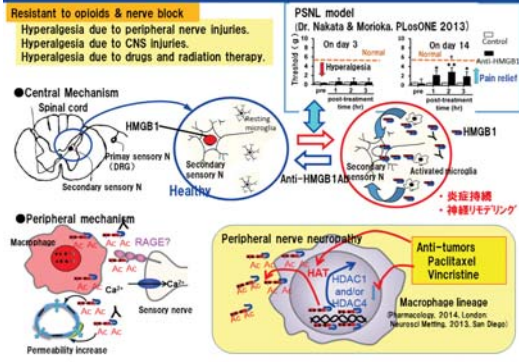
"Anti-HMGB1 antibody therapy" PI: Dr. Masahiro Nishibori



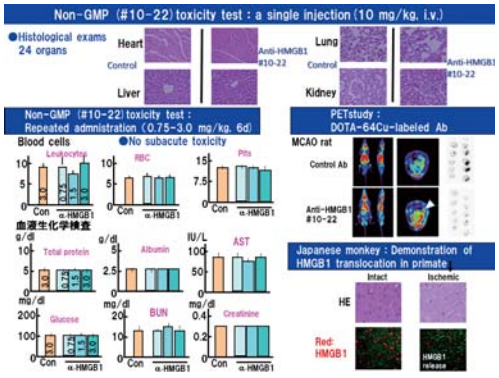
Brain and spinal cord injuries due to biological responses : Regulation by anti-HMGB1



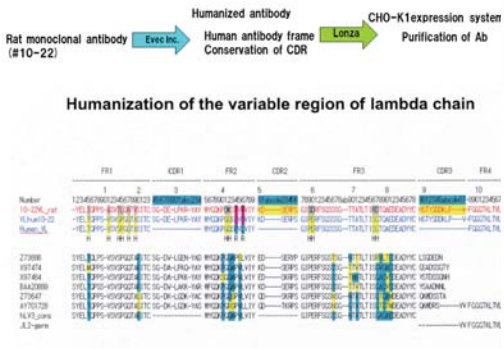
Pain regulation by a novel method different from opioids



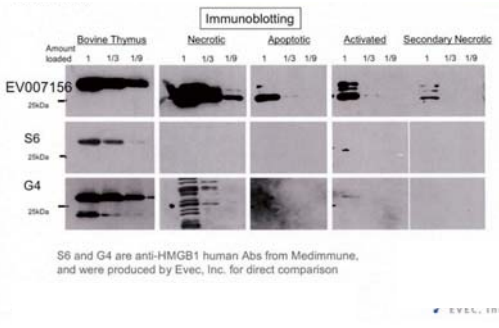
Non-GMP (#10-22) toxicity test : a single injection (10 mg/kg, i.v.)



Development of original humanized antibody recognizing C-terminal end of HMGB1



EV007156 binds all types of HMGB1 (OKY-001)



S6 and G4 are anti-HMGB1 human Abs from Medimmune, and were produced by Evec, Inc. for direct comparison

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